TTW



# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : 10/608,907
Applicant : Storer, et al.
Filed : June 27, 2003

T.C./A.U. : 1623

Examiner : Traviss C. McIntosh III

Docket No. : 06171.105084 (IDX 1018)

Customer No. : 20786

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

May 26, 2006

## **Supplemental Information Disclosure Statement**

Sir:

Pursuant to the duty of disclosure under 37 CFR §§ 1.56, 1.97 and 1.98, Applicants cite the publications listed on the accompanying PTO-1449. The citation of this information does not constitute an admission of priority or that any cited item is available as a reference, or a waiver of any right the applicant may have under the applicable statutes, Rules of Practice in patent cases, or otherwise.

Applicants note that several related pending U.S. patent applications will not be published in the United States because they exceed the number of publishable pages: 10/609,298; 11/005,471; 11/005, 442; 11/005,443; 11/005,466; 11/005,440; 11/005,442; 11/005,446; 11/005,472; 11/005,444 (all corresponding to WO 2004/003000) and 11/005,445; 11/005,468; 11/005,467; 11/005,470; 11/005,447; 11/005,441; 11/005,469 (all corresponding to WO 2004/002999).

The Examiner's attention is also directed to the following related cases: U.S. Application Publication Nos. U.S. 2004/0077587, U.S. 2003/0060400 and U.S. 2003/0050229.

All foreign patent documents and non-patent publications are submitted with this paper.

Although no fee is believed due, the Commissioner is hereby authorized to charge any deficiency associated with this paper to Deposit Account No. 11-0980.

KING & SPALDING 1180 Peachtree Street Atlanta, Georgia 30309-3521 404-572-3541 (Telephone) 404-572-5134 (Facsimile)

Respectfully submitted,

Theny Milnowla Nexpress permisse Madly therois 36,174 Sherry M. Knowles

Registration No. 33,052



#### SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

### Certificate of Mailing Under 37 CFR 1.8

I hereby certify that this Supplemental Information Disclosure Statement, along with all other items identified below, are being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the below-identified date.

Deposit Date: May 26, 2006

Appl. No.: 10/608,907

Docket No.: 06171.105084 (IDX 1018)

Enclosed: Supplemental Information Disclosure transmittal (2 pp.), Form 1449 (4 pp.) and

33 documents, and Postcard

Name: John Ezourra

3405786\_1

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

gn (+) inside this box  $\longrightarrow$   $\boxplus$ 

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

1

Sheet

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

of

4

	Complete if Known
Application Number	10/608,907
Filing Date	June 27, 2003
First Named Inventor	Storer et al.
Group Art Unit	1623
Examiner Name	Traviss C. McIntosh III
Attorney Docket Number	06171.105084 IDX 1018

			U.S. PATENT DOCUMENTS			
Examiner Initials *	Cite No. 1	U.S. Patent Document Number Kind Co (if known	) Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages/Relevant Figures Appear	T <sup>6</sup>
	AA	4,814,477	Wijnberg et al.	03-21-1989		
	AB	4,952740	Sylvain et al.	08-28-1990		
	AC	5,223,263	Hostetler et al.	06-29-1993		
	AD	5,780,617	van den Bosch et al.	05-31-1994		
-	AE	5,696,277	Hostetler et al.	12-09-1997		T
	AF	5,763,418	Matsuda et al.	06-09-1998		
	AG	5,789,608	Glazier	08-04-1998		
	AH	6,172,046	Albrecht	01-09-2001		ĺ
	AI	6,252,060	Hostetler et al.	06-26-2001		
	AJ	2003/0008841	Devos et al.	08-07-2001		
	AK	6,277,830	Ganguly et al.	08-21-2001		
	AL	6,348,587	Schinazi et al.	02-19-2002		1
	AM	2002/0055483	Watanabe et al.	05-09-2002		
	AN	2002/0055473	Ganguly et al.	05-09-2002		<b>†</b>
	AO	2002/0095033	Ramasamy et al.	07-18-2002		
	AP	6,436,437	Yatvin et al.	08-20-2002		
	AQ	6,448,392	Hostetler et al.	09-10-2002		
	AR	6,448,392	Hostetler et al.	09-10-2002		Ì
	AS	2002/0127203	Albrecht	09-12-2002		
	AT	6,472,373	Albrecht	10-29-2002		
	AU	6,495,677	Ramasamy et al.	12-17-2002		
	AV	2002/0198171	Schinazi et al.	12-26-2002		
	AW	2003/0008841	Devos et al.	01-09-2003		
	AX	2003/0050229	LaColla et al.	03-13-2003		
	AY	2003/0055013	Brass	03-20-2003		
	ΑZ	2003/0053986	Zahm	03-20-2003		
	AAA	2003/0060400	LaColla et al.	03-27-2003		1
	AAB	2003/0087873	Stuyver et al.	05-08-2003		1

4004009 Examiner	Date	
Signature	 Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

3405786 1

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

C hair to Comp 1440 A MTO	Complete if Known			
Substitute for form 1449A/PTO	Application Number	10/608,907		
INFORMATION DISCLOSURE	Filing Date	June 27, 2003		
STATEMENT BY APPLICANT	First Named Inventor	Storer et al.		
	Group Art Unit	1623		
(use as many sheets as necessary)	Examiner Name	Traviss C. McIntosh III		
2 of 4	Attorney Docket Number	06171.105084 IDX 1018		

U.S. PATENT DOCUMENTS Pages, Columns, Lines, U.S. Patent Document Date of Publication Name of Patentee or Applicant of Examiner Cite Where Relevant T<sup>6</sup> Kind Code of Cited Document Number Passages/Relevant No. 1 Cited Document Initials \* MM-DD-YYYY (if known) Figures Appear 6,566,365 Storer et al. 05-20-2003 BA 6,573,248 Ramasamy et al. 06-03-2003 BB6,599,887 Hostetler et al. 07-29-2003 BC 2003/0225029 Stuyver et al. 12-04-2003 BD 6,660,721 Devos et al. 12-09-2003 BE BF 2004/0002476 Stuyver et al. 01-01-2004 2004-0023921 Yao et al. 02-05-2004 BG 2004/0059104 Cook et al. 03-25-2004 BH Roberts et al. 2004/0063658 04-01-2004 BI 2004/0067901 Bhat et al. BJ 04-08-2004 Bhat et al. 2004/0072788 04-15-2004 BK Sommadossi et al. 2004/0077587 04-22-2004 BL 2004/0110717 Bhat et al. 06-10-2004 **BM** 2004/0110718 Devos et al. BN 06-10-2004 6,752,981 Erion et al. 06-22-2004 BO 2004/0147464 Roberts et al. 07-29-2004 BP Bhat et al. 6,777,395 08-17-2004 BQ 6,784,166 Devos et al. 08-31-2004 BR Ismaili et al. 6,784,161 BS 08-31-2004 2004/0266722 Devos et al. 12-30-2004 BT BU 2004/0266723 Otto et al. 12-30-2004 2005/0009737 Clark et al. 01-13-2005 BV 6,846,810 Martin et al. BW 01-25-2005 6,875,751 Imbach et al. 04-05-2005 BX2005/0119200 Roberts et al. 06-02-2005 BY 6,911,424 Schinazi et al. 06-28-2005 BZ 6,965,066 Jiang et al. 11-15-2005 BAA

Examiner		Date	
Signature		Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

3405786 1

Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PT			Complete if Known			
Substitute for form 1445AVF IV			Application Number	10/608,907		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		SURE	Filing Date	June 27, 2003		
		ANT	First Named Inventor	Storer et al.		
<b>A</b>	-t		Group Art Unit	1623		
(use as many	sheets as necessary)		Examiner Name	Traviss C. McIntosh III		
3	of 4		Attorney Docket Number	06171.105084 IDX 1018		

	FOREIGN PATENT DOCUMENTS									
Examiner Cite Initials * No.				Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages/ Relevant Figures Appear	T <sub>e</sub>			
	CA	GB	1163 103		Merck	09-04-1969				
	CB	GB	1163 102		Merck	09-04-1969				
	CC	GB	1209 654		Merck	10-21-1970				
	CD	EP	0747 389		Taiho Pharmaceutical Co. Ltd.	12-11-1996				
	CE	wo	03/051899		Girardet et al.	06-26-2003				
	CF	wo	03/061385		An et al.	07-31-2003				
	CG	wo	03/061576		An et al.	07-31-2003				
	СН	wo	03/062256		An et al.	07-31-2003				
	CI	wo	03/062257		An et al.	07-31-2003				
	CJ	wo	03/062255		Hong et al.	07-31-2003				
	CK	wo	04/000858		Carroll <i>et al</i> .	12-31-2003		Т		
	CL	wo	04/007512	A2	Merck & Co., Isis Pharmaceutical	01-22-2004		$\top$		
	CM	wo	06/012440	A2	Wang et al.	02-02-2006		T		

		OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	CN	AWANO, H., et al., "Nucleosides and nucleotides. Part 144. Synthesis and antiviral activity of 5-substituted (2'S)-2'-deoxy-2'-C-methylcytidines and -uridines," Archiv der Pharmazie, VCH Verlagsgesellschaft mbh, Weinheim, DE. 329:66-72 (February 1, 1996).	
	СО	BEIGELMAN, L.N., et al, "A general method for synthesis of 3'-C-alkylnucleosides," Nucleic Acids Symp. Ser., 9:115-118 (1981).	
	CP	CAPPELLACCI, L., et al., "Ribose-modified nucleosides as ligands for adenosine receptors: Synthesis, conformational analysis, and biological evaluation of 1'-C-methyl adenosine analogues," J. Med. Chem., 45:1196-1202 (2002).	
	CQ	FEDEROV, I.I., et al., "3'-C-branched 2'-deoxy-5-methyluridines: Synthesis, enzyme inhibition, and antiviral properties," J. Med. Chem., 35:4567-4575 (1992).	
	CR	FRANCHETTI, P., et al., "2'-C-Methyl analogues of selective adenosine receptor agonists: synthesis and binding studies," J. Med. Chem., 41(10):1708-1715 (1998).	
	CS	HATTORI, H., et al., "Nucleosides and nucleotides. 158.," J. Med. Chem., 39:5005-5011 (1996).	

Examiner Signature	Date Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/P	- PTO		Complete if Known			
Smortime for four 1445/ALTO			Application Number	10/608,907		
INFORMATION DISCLOSURE			Filing Date	June 27, 2003		
STATEMENT	STATEMENT BY APPLICANT		First Named Inventor	Storer et al.		
~			Group Art Unit	1623		
(use as man	y sheets as necess	sary)	Examiner Name	Traviss C. McIntosh III		
4	of	4	Attorney Docket Number	06171.105084 IDX 1018		
		•			3405786	

		OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	DA	HREBABECKY, H., et al., "Nucleic acid components and their analogues. CXLIX. Synthesis of pyrimidine nucleosides derived from 1-deoxy-D-psicose," Collect. Czech. Chem. Commun., 37:2059-2065 (1972).	
	DB	HREBABECKY, H., et al. "Synthesis of 7- and 9-β-D-psicofuranosylguanine and their 1'-deoxy derivatives," Collect. Czech. Chem. Commun., 39:2115-2123 (1974).	
	DC	JOHNSON, C.R., et al, "3'-C-Trifluoromethyl ribonucleosides," Nucleosides & Nucleotides, 14(1&2):185-194 (1995).	
	DD	LI, NanSheng., et al., "2'-C-branched ribonucleosides. 2. Synthesis of 2'-C-β-trifluoromethyl pyrimidine ribonucleosides," Organic Letters, 3(7):1025-1028 (2001).	
	DE	MATSUDA, A., et al., "Radical deoxygenation of <u>tert-alcohols in 2'-branched-chain sugar pyrimidine</u> nucleosides: Synthesis and antileukemic activity of 2'-deoxy-2'( <u>S</u> )-methylcytidine," <i>Chem. Pharm. Bull.</i> , 35(9):3967-3970 (1987).	
	DF	MATSUDA, A., et al., "Nucleosides and Nucleotides. 94. Radical deoxygenation of tert-alcohols in 1-(2-C-alkylpentofuranosyl)pyrimidines: Synthesis of (2'S)-2'-deoxy-2'-C-methylcytidine, an antileukemic nucleoside, "J. Med. Chem., 34:234-239 (1991).	
	DG	MIKHAILOV, S.N., et al., "Synthesis and properties of 3'C-methylnucleosides and their phosphoric esters," Carbohydrate Research, 124:75-96 (1983).	
	DH	MURAL, Y., et al., "A synthesis and an X-ray analysis of 2'-C-, 3'-C- and 5'-C-methylsangivamycins," Heterocycles, 1(33):391-404 (1992).	
	DI	ONG, S.P., et al, "Synthesis of 3'-C-methyladenosine and 3'-C-methyluridine diphosphates and their interaction with the ribonucleoside diphosphate reductase from Corynebacterium nephridii," Biochemistry, 31(45):11210-11215 (1992).	
	DJ	ROSENTHAL, A., et al., "Branched-chain sugar nucleosides. Synthesis of 3'-C-ethyl (and 3'-C-butyl)uridine Carbohydrate Research, 79:235-242 (1980).	
	DK	SCHMIT, C., "Synthesis of 2'-deoxy-2'-α-monofluoromethyl and trifluoromethylnucleosides," <i>Synlett</i> , Thieme Verlag, Stuttgart, DE, (4):241-242 (1994).	
	DL	SHARMA, P.K., et al., "Synthesis of 3'-trifluoromethyl nucleosides as potential antiviral agents," Nucleosides, Nucleotides and Nucleic Acids, 19(4):757-774 (2000).	
	DM	TRONCHET, J.M.J.; et al., "72. Synthèse et désamination enzymatique des C-hydroxyméthyl-3'-et C-méthyl-3'-beta-D-xylofurannosyl-9-adénin es," Helv. Chim. Acta, 62:689-695 (1979).	
	DN	WOLF, J., et al., "New 2'-C-branched-chain sugar nucleoside analogs with potential antiviral or antitumor activity," Synthesis, Georg Thieme Verlag. Stuttgart, DE, (8):773-778 (August 1992).	

3405786\_1

		<u> </u>	
Examiner	Date		
Signature	Considered		

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.